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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/720,532	11/24/2003	Jan Sudor	G-090US04DIV	4393

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EXAMINER	
STOUFFER, KELLY M	
ART UNIT	PAPER NUMBER
1792	

MAIL DATE	DELIVERY MODE
03/17/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/720,532	SUDOR, JAN	
	Examiner	Art Unit	
	KELLY STOUFFER	1792	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08 February 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-3,7-9 and 12-24* is/are pending in the application.

4a) Of the above claim(s) *13-24* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3,7-9 and 12* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 14 January 2008 has been entered.

Response to Arguments

Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-3, 7-9 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Parce et al ('545) in view of Voss et al. (US 6,706,162) and in further view of Thurow (US 4,783,441).

Parce et al. ('545) teaches using a "operation control reagent" in the reaction of biochemical analyses, such as protein sizing separation, nucleic acid separation, drug screening, high throughput genetic analysis and the like fluid operation performed in a micro fluidic system (page 1, [0002]) to provide environmental control for the fluid operation. The operation control reagent, i.e., reaction mixture, comprising a surface-adsorbing polymer (page 3, [0021]) in a buffered solution (page 4, [0031]) to prevent adsorption of dissolved organic material, such as polymer, to the microchannel surface (page 2, [0019]), which is non-covalent bonding. Parce et al. ('545) further teach that surface-adsorbing polymer (page 1, [0013]) is typically not involved directly in the reaction of interest, i.e. does not inhibit the fluid operation.

Parce et al. ('545) is silent concerning of the particular molecular weight of the surface-adsorbing polymer. Voss et al. ('162) teach a reaction mixture for separating analysis of polymerase chain reaction (PCR) product (col. 1, line 28-30), wherein the reaction mixture consisting a surface interaction polymer (col. 2, line 26-27) to modify the capillary glass surface charge (col.1, line 58-65). Voss et al. ('162) further teach that

the suitable surface interaction polymer including poly (N, N –dimethylacrylamide) and copolymer of polyacrylamide and poly (N, N-disubstituted acrylamide) with average molecular weight of 200,00 Dalton to 5,000,000 Dalton (col. 8, line 1-40). Since Parce et al. ('545) teach utilizing a surface adsorbing polymer, such as polyacrylamide to reduce adsorption of protein to the substrate surface and Voss et al. ('162) teach utilizing the surface interaction polymer, such as polyacrylamide to minimize the surface charge of the glass surface in a fluid operation within a micro channel apparatus. Therefore it would have been obvious to one of ordinary skill in the art to use the teach of Voss et al. ('162) in the teach of Parce et al. ('545) to minimize the surface charge effect as well as to prevent the adsorption of protein on the glass surface.

Parce et al. and Voss et al. do not explicitly teach that the surface adsorbing polymer is a block copolymer comprising propylene and ethylene oxides. Thurow, in addition to teaching some of the polymers of the above references, teaches a wide range of polymers that may be used as a surface adsorbing polymer that includes propylene and ethylene oxides (columns 3 and 4 et seq) because of their hydrophobic/hydorphilic areas and proportions, which would certainly be useful in Parce et al. and Voss et al. Therefore, it would have been obvious to one of ordinary skill in the art to use the polymers of Thurow in Parce et al. and Voss et al. to reap the benefits of their hydrophobic and hydrophilic proportions.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KELLY STOUFFER whose telephone number is (571)272-2668. The examiner can normally be reached on Monday - Thursday 7:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks can be reached on (571) 272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Kelly Stouffer
Examiner
Art Unit 1792

kms

/Timothy H Meeks/
Supervisory Patent Examiner, Art Unit 1792